COMMENTS PER GN DOCKET NO. 11-16

BACKGROUND

The Federal Communications Commission (FCC) recently solicited comments on how to update and evaluate the 2009 Rural Broadband Report. When this was first published, it was recognized that our collective abilities to understand the current state of rural broadband was weak. Since then, there have been a number of efforts to improve our abilities to effectively measure the current state of broadband. Front and center in this quest for better information was the state broadband mapping efforts that were funded through NTIA. Millions of dollars were granted to state government entities to facilitate the states gathering the much needed information.

While this certainly has helped us gather more information regarding rural broadband, it still does not effectively meet the needs for proper measurement. Over the past few months, we have been working closely with many of the states that have received multi-million dollar grants to gather the data. The problem isn't the concept, but rather the NTIA mandate to obtain the required information directly from the carriers. The typical story we hear is that only 50% to 75% of the carriers in their respective states are submitting the data. In other words, 25% to 50% of the carriers are not supplying the data.

This simply does not work. While it is good to know where certain carriers are deploying broadband, we cannot solve the problem if a large percentage of the carriers do not report. In addition to an abundance of "missing" data, there are many other issues with gathering the data in this manner.

- Is the data correct? We are also hearing from the states that when the carriers do provide data, there are questions about the accuracy. Because the carriers have some discretion on how they report, there are situations where a carrier reports that they "could have" access for a particular area within a certain amount of business days.
- Who is reporting? Another problem we see is that many carriers are not known. This is especially is true amongst the Wireless Internet Service Providers (WISPs) and Satellite Providers. As the bandwidth increases, we need to have good visibility not only for Cable and DSL, but also for mobile broadband and other wireless connections.

What we are observing is that there is a much more effective process to provide a report that accurately describes the current state of broadband in rural America. This process has the advantages of being:

- More complete than all efforts thus far.
- More accurate.
- More timely.
- Unbiased.
- And at significantly less cost to our taxpayers

BROADBAND SCOUT - BACKGROUND

In the summer of 2009 when the first round of Broadband Stimulus Grant Monies were being applied for, we received a call from a telecommunications provider looking to apply for a rural region in Virginia. ID Insight is a data and analytics company that sees hundreds of millions of transactions which tracks where people are and what credentials they use. The telecommunications company inquired whether we had "broadband connectivity information down the Census Block Number level".

In reviewing the request and doing our background research, we realized both the importance of the question and the difficulties of various approaches being undertaken. Surveys were proving to be too

costly. Gathering data and information directly from the carriers was proving difficult as explained above. Yet another method was going out to websites and submitting addresses for availability.

As we considered the problem and these existing efforts, we realized that at the core of this need was to link a consumer's physical address with their internet protocol, or I.P. address. This I.P. address tells us who my broadband provider is along with additional valuable information.

BROADBAND SCOUT

When we consider gathering information linking a consumer's physical address to their I.P. address, suddenly we have a new lens and a new way to solve the problem. Each and every day there are millions and millions of internet transactions where a consumer enters in their name, address and phone information and then hits the submit button. This could be at Amazon.com, their local online newspaper or any other number of reasons.

We next began to research how people use the internet and for what purposes. According to Pew Internet's latest trends of online users, three of the most common reasons to use the internet are to purchase a product (75%), get news (72%) and to make travel reservations (66%).

For all of these uses, a consumer typically will provide their physical address and once they hit the submit button the merchant captures the I.P. address which tells us their carrier. Given this information, we extracted millions of merchant, news and travel transactions and quickly realized that it would give us the information required to report on the current state of broadband.

When we looked at any particular market, we would quickly see not just the major providers, but all the smaller providers as well. In addition, we were not only seeing the cable and DSL providers, but the Fixed Wireless, Mobile Wireless, Satellite, Fiber and even Dial-Up connections.

Coverage: Armed with this information, we quickly assembled as many internet transactions as possible to provide the framework for this comprehensive solution to the problem. Since we began compiling Broadband Scout, we have now amassed over 300 million transactions that link a consumer's physical address to their broadband provider. This equates to nearly 20% of all households in the country. In addition to allowing us to observe the "residential state of broadband", we are also able to report on the "business state of broadband".

Reporting Level: Because we start with the consumer's physical address, it is then simple to report any geographic level, whether it be Census Block Number, Zip+4 or even street level.

Speed Measurements: In addition, because we have the I.P. address, we can then seamlessly match to external speed testing databases to gain a much more accurate understanding of the actual speeds being delivered by these same carriers. This is vitally important since it is routine for carriers to advertise and sell a certain speed category only to have the consumer report that they do not receive the speed which was advertised.

Usage and Market Share: Because we see transactions and frequency of transactions across the nation, we can also report on the overall usage levels and respective market share amongst the various carriers. This is especially critical in rural areas where this type of data is more difficult to find. We can and do provide this information for the smallest and most rural counties and communities in the country.

Unbiased and Transparent: Internet transactions occur every day across the country through every broadband provider. It is this unbiased approach and transparency that releases the burden on information having to be provided from the carriers themselves.

Timely: Because internet transactions happen each and every day, we can compile and report on the information as quickly as needed. We can see changes to the overall state of broadband every quarter, every month or any other time frame that is actionable.

CONCLUSION

We believe that the FCC and other government agencies could greatly improve their data gathering efforts by adopting a program where we leverage the millions and billions of internet transactions that take place over the internet. Moving forward with such an approach will have immense and immediate cost savings for the FCC, NTIA and others, as well as finally having an accurate and timely picture of the state of broadband, whether it be rural or not. In addition, by seeing every type of internet connection over time, we can be in a position to observe at any point in time our progress.